

ABSTRACT

A linear interferometric sensor system in which the light output from the interferometric sensor is optically bandpass filtered before conversion to an electrical signal by an adjustable band-pass filtering device and the center
5 wavelength of the adjustable band-pass filtering device is controlled by a feedback circuit responsive to the steady state component of the electrical signal corresponding to the filtered sensor return. In a preferred embodiment, the adjustable band-pass filtering device is an electrically tunable optical filter. The invention is particularly useful in self calibrating interferometric/intensity-based
10 sensor configuration, but can be used with other linear interferometric sensor configurations.